

Brazil
Public Health Secretariat of Curitiba

BRAZIL
Collaboration Program with
the Private Sector for Disseminating
Japanese Technology for Smart Healthcare
for Preventing Lifestyle Diseases
in Curitiba
Final Report

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Japan International Cooperation Agency (JICA)

Tanita Corporation
Tanita Healthlink Inc.

OS
JR
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Chapter 1 Background and Necessity of the Collaboration Program

1-1. Background of the Collaboration Program

Tanita Corporation (hereafter Tanita) expanded early on in their business into overseas countries because the Japanese market was oversaturated. This was caused by the decreasing Japanese population and the fact that there are many competitors in the Japanese market. Tanita has already set up offices in Amsterdam, Beijing, Shanghai, Hong Kong, Mumbai, Seattle and Chicago for selling their products. However those overseas offices face the same situation as in Japan, and their business situation is getting more and more competitive because of other companies from Korea, China, etc. The intensification of domestic and international competition has provided a chance for Tanita to consider launching new methods for expanding their product distribution and know-how to new markets in new countries.

To promote the stability of Tanita's business over the long run, Brazil is one of the most important potential markets. Now Brazil faces issues of lifestyle diseases which have increased due to Brazil's rapid economic growth. The rich life provides a changing lifestyle but it leads to Brazilian obesity, hyper-tension, and so on. Tanita has the know-how and products for solving lifestyle diseases. Taking a cue from this background, Tanita is looking to expand to Brazil their business combination of know-how and products.

As a company providing products related to healthcare, based on the concept that employees of Tanita have to be good in health, Tanita was executing in-house projects. One of the in-house projects was that all employees have activity monitors and know their own body composition. This project, called the "Tanita healthcare project", led to the decreasing percentage of employees with metabolic syndrome and obesity. On top of this, the expenditure of Tanita's corporate health insurance society decreased 10 thousand Yen (approximately 120 US dollars) for each employee. Comparatively, the rate of increase of costs to other corporate health insurance societies (from 2010 to 2011), was nearly 10%. Tanita however had a cost decrease of nearly 10%. This successful project was introduced in "Annual Health, Labour and Welfare Report" (Ministry of Health Family and Welfare).

Tanita would contribute to provide healthcare solutions and advantages to patients faced with lifestyle diseases in cooperation with Curitiba city and the Chamber of Commerce and Industry for Brazil-Japan of Parana (hereafter CCIBJ).

1-2. Purpose of the Collaboration Program

The purpose of the collaboration program is as follows:

1. Preparation for launching business in Brazil and establishing a beachhead in the South American market;

2. Providing healthcare solutions with the effect of decreasing the number of patients with lifestyle diseases, and improving health;
3. Targeting people and enlightening them to healthy life using healthcare equipment with the ICT system;
4. Contribution to increasing the health of the people of Brazil.

As the first step for the above purpose, it was very important for the officials in Curitiba City to understand the effectiveness of healthcare equipment through this project.

1-3. Target Area/Beneficiary:

The Tanita project in Curitiba was promoted in two steps. In the first step, the Tanita project tried to increase the awareness and acceptance of the healthcare management system in Curitiba, and provided the improvement and enlightenment of healthy life to Curitiba citizens with healthcare data management. Tanita provided their experience in the “Tanita health project” to the citizens of Curitiba city. This project provided activity monitors to officials in Curitiba (hereafter officials) and members in CCIBJ (hereafter members), and they set up body composition monitors at a primary care unit in Curitiba.

In the second step, officials came to Japan and were able to experience the whole project, from using equipment to advice from experts. Through the officials who visited Japan, Tanita gained opportunities to better understand the situation.

Chapter 2 Outline of the Collaboration Program

2-1. Information of the Technologies:

Providing products and know-how as indicated below.

Managing personal healthcare data by using activity monitors and body composition monitors, and providing data analysis and know-how to Curitiba.

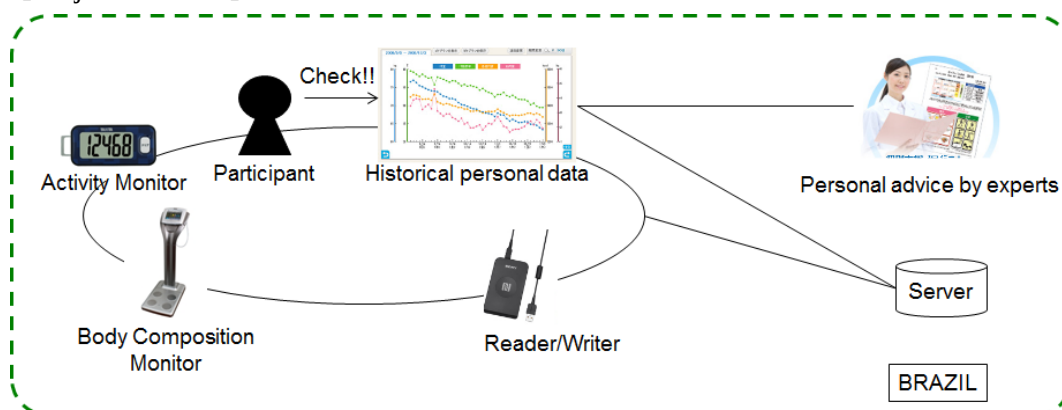
【Products】 Activity monitor,、 Body Composition Monitor

【ICT】 Tanita Health Planet (English version)

-Website

-Smartphone application

【Project structure】



【Website】



2-2. Duration:

9 months (From 2 June 2014 to 20 March 2015)

2-3. Implementing Organization :

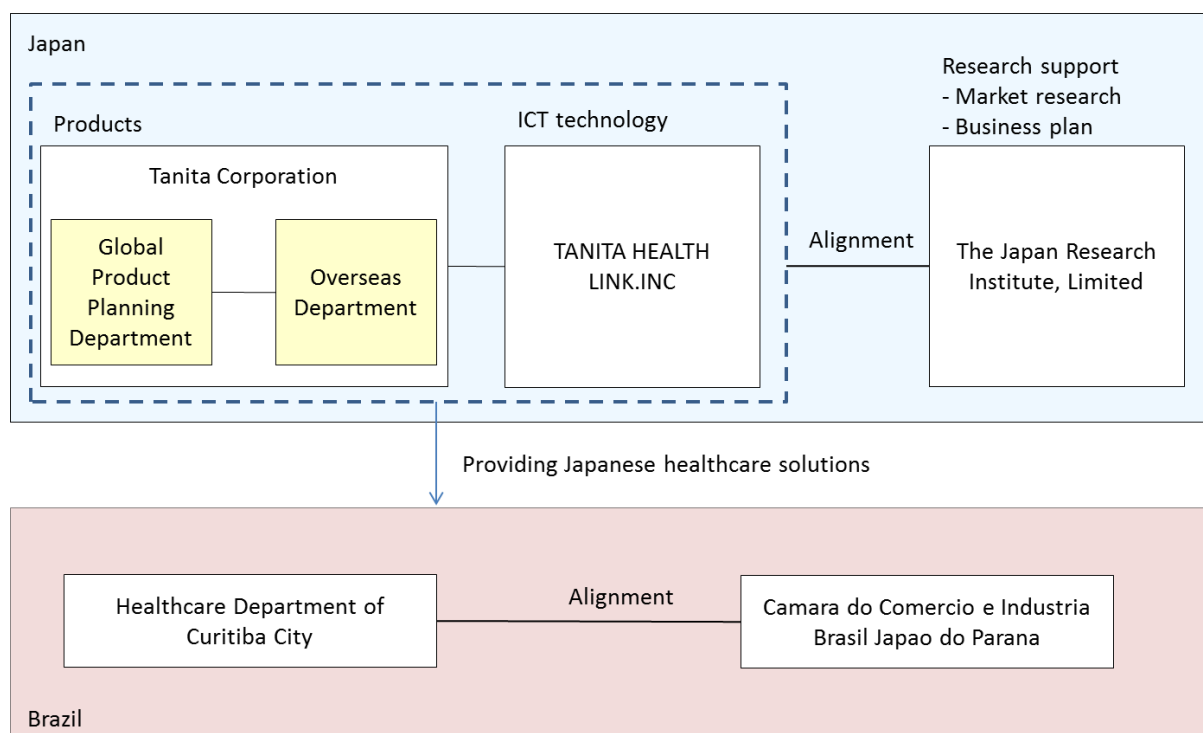
Tanita Corporation

Tanita Healthlink Inc.

The Japan Research Institute, Limited

Public Health Secretariat of Curitiba

Camara do Comercio e Industria Brasil Japao do Parana



Chapter 3 Market Research:

3-1. Research on the market trends of healthcare equipment

Researching the market trends of analogous equipment in shop fronts was conducted in Sao Paulo and Curitiba.

3-1-1 Weight scales and body composition monitors

① Home use product

Body composition monitors were not sold in shops (drug stores, large-scale retail stores, etc.) in Sao Paulo and Curitiba. Only weight scales which are for home-use and simple equipment were sold in shop fronts. Those kind of equipment were made in the United States or in Brazil.

Researchers were only able to find one store in Curitiba that was selling simple body composition monitors which can measure weight, BMI, and the amount of water in the human body.

② Professionals/Medical use product

Body composition monitors for medical use must be certified by ANVISA before importing into and selling in Brazil. In this research the body composition monitors “Inbody” made by a Korean company were able to be certified by ANVISA.

3-1-2 Activity monitors/pedometers

This research did not find any sales of activity monitors or pedometers in shop fronts.

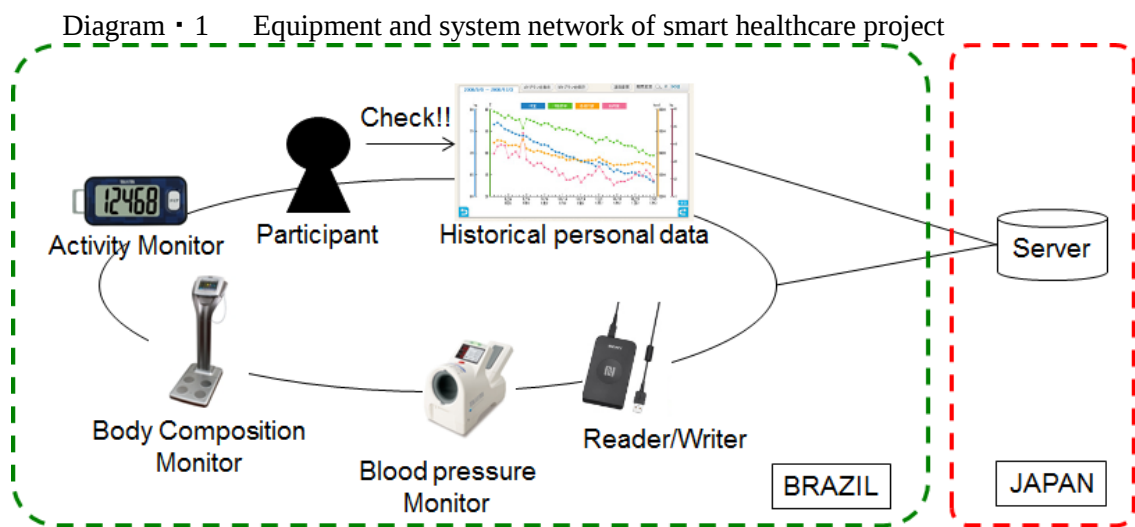
Chapter 4 Business Possibility Verification of Smart Healthcare in Brazil

4-1. Planned Pilot project

A schedule and users of the planned pilot project were as follows:

Planned schedule of the pilot project	September to December 2014(4 months)
Candidate users of the pilot project	Curitiba citizens, 50 participants

The equipment and system network of the planned pilot project is as follows;



4-2. Issues on the preliminary phase of the pilot project

Some issues occurred in the preliminary phase.

① Import restriction of body composition monitors

Importing professional type of body composition monitors into Brazil requires certification by ANVISA in advance. However, it takes approximately 2 years to be certified. We had no choice but to change equipment.

② The place of installation of network server

The Brazilian law does not allow Brazilian personnel data to be sent overseas. The network server was in Japan in the planned phase, a new network server had to be reconstructed in Brazil.

③ Requirement of Ethical Committee certification for this pilot project

The Ethical Committee required that this smart healthcare project must show verified healthcare improvement data or effectiveness data of the healthcare project in Japan. However, there were no data which related preventive diseases so it was difficult to exhibit the data to the Ethical Committee. We had to give up providing this service directly to Curitiba citizens.

4-3. Operational pilot project

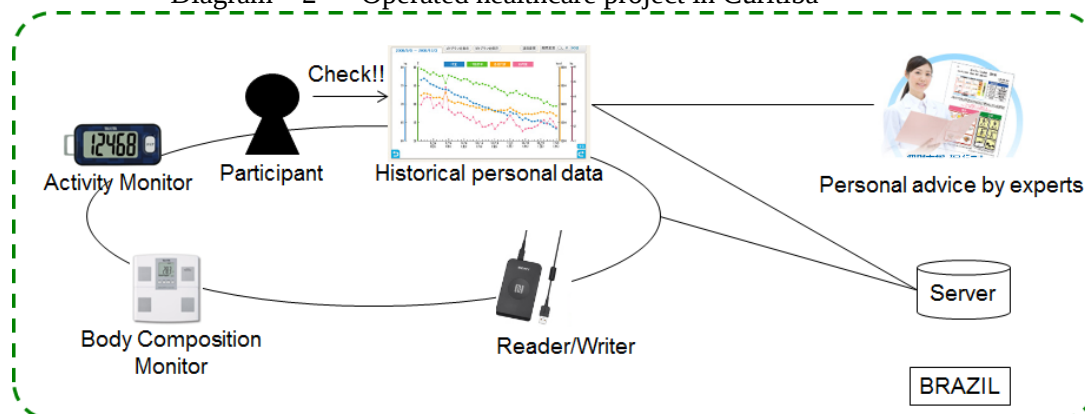
The operational pilot project was as follows:

Duration	From January to February, 2015 (2 months)
Place of setting up equipment	Primary care unit of the Curitiba Municipality
Participants	Patients who were judged to need counselling by a nutritionist. Officials in Curitiba city
Number of participants	39

Modifications from planned the pilot project are as follows;

- Built a server and opened the websites for this project in Brazil during the pilot project.
- Provided body composition monitors for home use and connection to the server in Brazil by Wi-Fi.
- Adapted the method so that Tanita provided equipment to Curitiba Municipality, and Curitiba Municipality under their initiative carried on the healthcare project at the health unit in Curitiba.

Diagram • 2 Operated healthcare project in Curitiba



4-4. Impacts of the pilot project

The data which were obtained by body composition monitors had not generally been used as in Brazil. It is therefore extremely difficult to get Brazilians to provide data for to this project.

Especially for participants, the data and an activity monitor provide opportunities for them to talk about healthcare or their amount of activity within their family or their community.

However, on the other hand, comments were received for improvements of the activity monitors. Regarding how to use the activity monitor, some Brazilians did not like it because

of stuck to their skin in the summer time. As to the design of the activity monitor, some Brazilians would like to have some kind of neck-strap as they could change it if they would to or in different situations day to day.

4-5. Evaluations of the pilot project

① Evaluations from the counter-parts in Brazil

They had some evaluations of this pilot project. Points of the valuations are as follows:

-This smart healthcare project is an epochal method. It uses network systems and collects personal healthcare data by using the equipment. The data collected are to be utilized for the improvement of personal healthcare.

-It does not make any distinction based on people's ages. This project can provide services from young people to the elderly.

-By determining the amount of activity per day, experts such as doctors, nutritionists etc., can provide counselling for people based on their job categories.

Chapter 5 Understanding the Japanese healthcare market

5-1. Outline of activity in Japan

A brief summary is as follows:

① A purpose

- Understanding that this project is supported by JICA
- Understanding the Japanese healthcare market

② Invitees and schedule

Three persons were invited.

Public Health Secretariat of Curitiba	Secretary
	Director
	Dietitian

The program and the purposes of the activity in Japan are as follows;

Diagram • 3 Purposes of the activity in Japan

1. Understanding Tanita Corporation and products
2. Understanding of the effectiveness and improvement of health through the Tanita health project
3. Promoting the confidence-building of the Tanita health project through meetings with officials of municipalities in Japan
4. Understanding and experience of the Tanita health project (including consulting services by experts)
5. Understanding the Japanese healthcare market and healthcare interests among Japanese citizens
6. Understanding Japanese healthcare and medical systems

Diagram • 4 Itinerary

	Morning	Afternoon
23rd February 2015		Arrive in Japan
24th	- Introducing Tanita and its products - Tanita cafeteria	- Visiting to Tsurugashima-city
25th	- Site visit healthcare market	- Visiting to private company A
26th	- Introducing Tanita healthcare project in Japan - Tanita Museum	- Visiting fitness club "Fits Me" - Meeting with a Doctor at Tanita Institute - Lecture "Understanding the Japanese healthcare system"
27th	- Visiting to private company B	- Wrap-up meeting
28th	Leaving Japan	

5-2. Achievements of the activity in Japan

The activity in Japan received high satisfaction of their understanding of the Japanese healthcare market and healthcare system by the invitees.

The details are as follows:

① Publicity and evaluations in Brazil

The fact that three officials in the Curitiba Municipality were invited and gained understanding regarding the Japanese healthcare market was widely publicized in Brazil.

② Developing possibility of this project

This healthcare project is good for healthcare improvement.

The municipality of Curitiba welcomes and hopes this project can be expanded. The municipality of Curitiba has 109 healthcare units, and they would like to expand these methods to the rest of the healthcare units next fiscal year.

③ Publicity of Brazil as a model for success and a pilot model city for improvement the personal health

If this project continues in Curitiba and provides results which can improve people health in Brazil, there are big possibilities to expand business throughout Brazil in the future.

④ Understanding the Japanese healthcare system

It was a fruitful meeting to gain an understanding of the Japanese healthcare system through this visit. Some issues are the same as in Brazil, however, they could understand that the

Japanese system is different in some parts from Brazil as well.

By expanding and proceeding with this healthcare project in Brazil, Brazil may achieve some solutions in the healthcare sector in Brazil.

Chapter 6 Conclusion

6-1. A direction of this project

Tanita has already set up offices in overseas countries and the Brazilian market is under the jurisdiction of Chicago and Seattle offices. Tanita was able to understand the possibility of the Brazilian healthcare market through this project. However, Tanita could not provide the planned project because of some issues. From here onwards, at the beginning, Tanita would like to proceed with the points below:

- Obtaining ANVISA certification for selling equipment.
- Participating and displaying at exhibitions for both home use and professional/medical use, and appealing to the Brazilian market.
- Searching business agencies and signing sales agreements equipment can be imported smoothly into Brazil.

6-2. Development effectiveness of this project

This pilot project provided the possibility of both improvement health and the enlightenment healthcare to Brazilian.

① Effectiveness of healthcare improvement

Curitiba municipality praised this project highly in achieving the possibility of improvements in healthcare. They requested that this project be continued and to expanded, and they pointed out that if the project continues, the conditions of Curitiba citizens would be improved.

Diagram ▪ 5 Examples of health improvement

Gender	Male	Female
Age	43	70
Height	182cm	167cm
Weight	136kg	101.1kg
BMI	41.1	36.3
Obesity class	3	N/A
baseline disease, etc.	Hypertension, Pre diabetes	Anemia, coprostasis, bulimia
Walk time shift during the pilot project	(minutes)	(minutes)
Week 1	239	137
Week 2	312	130
Week 3	618	227
Week 4	702	162
Week 5	625	N/A
Weight after the pilot project	132kg (Decreased 3%)	98.9kg (Decreased 2.2%)
BMI after the pilot project	39.85	33.8

② Effectiveness of enlightenment and details of exercise counselling

Curitiba municipality recognized the potential of this project for healthcare enlightenment.

The amount of activity per day indicated by the activity monitor could also indicate the amount of activity during their work. In that point it was highly evaluated.

Diagram ▪ 6 An achieved example of enlightenment

Gender	Female
Age	59
Height	151cm
Weight	56.8kg
BMI	24.9
Obesity class	N/A
baseline disease, etc	N/A
Walk time shift during the pilot project	(minutes)
Week 1	425
Week 2	816
Week 3	918
Week 4	991
Week 5	N/A
Weight after the pilot project	56.1kg
BMI after the pilot project	24.6

6-3. Partnership with ODA under JICA

The project has the possibility to be developed into a Grass-roots Support program as a JICA project. The counterpart of this project, Curitiba, is a municipality in Brazil, and Tanita has already provided the same project to municipalities in Japan so that it has the potential to develop or to expand the know-how of this project to overseas countries.

The dietary intervention by Tanita was well received by Curitiba officials. Especially regarding the method of cooking or menus in Tanita restaurants, officials in Curitiba rated them highly. In the view of nutrition and meals to BOP in Brazil, it has the potential to proceed with projects with JICA support.